BARIX ONSITE

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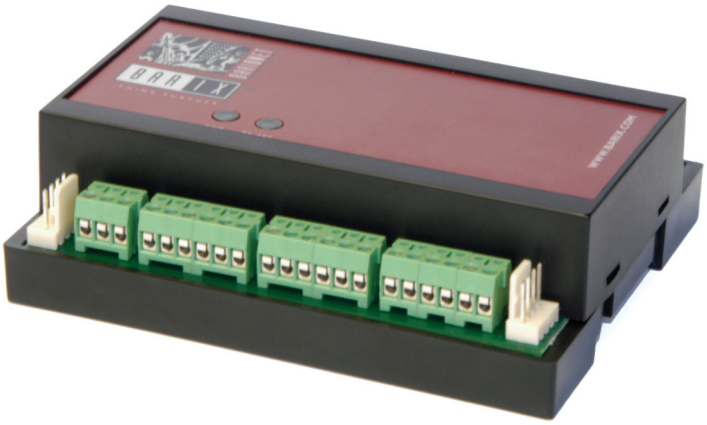
IO12

DIN-rail mountable I/O unit for commercial control, signaling, switching, sensing and counting applications



12 solid state sourcing outputs (up to 1.5 A @ 6 to 30 VDC)

12 ESD protected inputs (opto isolated in groups of 4, 10 to 30 VDC)

RS-485 (2-wire) serial interface, Modbus/RTU protocol

Two extension connectors for easy daisy chaining of power supply, additional I/O units (IO12), relay units (R6) etc.

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Technical Specifications

Outputs:
12 solid state current sourcing (thermal and over current protected, max 1.5 A each, max 6 A in total, connector for external power supply, 30 VDC max.

Inputs:
12 opto isolated inputs (5 to 30 VDC), registered (30 msec filter) and counted (<100 pulses/sec), ESD protected in groups of 4 with separate power terminals (10 to 30 VDC, polarity protected)

Serial Interface:
RS-485 (2-wire), 9'600/19'200 Baud , 8 bit, Even/No parity, software configurable, Modbus/RTU protocol

Connectors:
Separate detachable screw terminal blocks for wires AWG 28 – AWG 16 / 0.08 – 1.3 mm^2
2 extension connectors (3"/75 mm cable included)

Misc:
2 LED's for power and RS-485 send indication
Internal connector for default settings jumper

Power supply requirements:
12 to 24 VAC / 9 to 30 VDC, 2 Watt max.

Case:
high quality plastic, 145 g, DIN-rail mount.
4.13" x 3.34" x 2.83", 105 mm x 85 mm x 32 mm

Reliability,environmental conditions:
MTBF: Min. 207'000h acc. to MIL217F at 24 VDC supply and 40°C ambient temperature
Operating temp.:0 to +40°C / 32 to 104°F,
storage temp.: 0 to +70°C / 32 to 158°F,
both 0 - 70% relative humidity, non-condensing

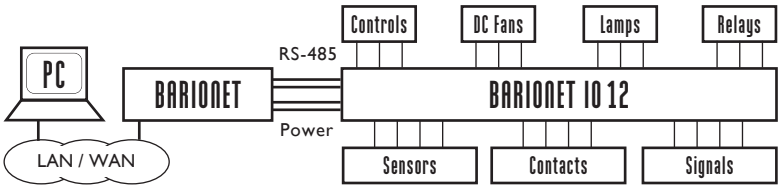
Conformity:
FCC (A and B), CE (A and B)
Emission EN60730-1:2000 (Class B)
Immunity EN60730-1.2000

Overview

Barix IO12 is a DIN-rail mountable I/O unit for commercial control, signaling, switching, sensing and counting applications. Using the industry standard Modbus protocol over 2-wire RS-485 the device can be controlled from any Modbus capable master.

Twelve outputs allow the use of the Barix IO12 in a wide range of switching and signaling applications:
- Switching DC power for controls, fans, motors and relays
- Activate bells, door strikes, lamps/indicators and alarms

Each output is capable of sourcing up to 1.5 Amps drawn from a DC power supply (5 to 30 Volts over separate supply terminals). For thermal reasons the total current should not exceed 6 Amps which leaves 0.5 Amps per output when using all outputs.



Twelve opto isolated electro static discharge protected inputs are powered in groups of 4 by 3 separate external power inputs. For counting applications each input signal is directly fed into a counting register (up to 100 pulses per second). At the same time each signal is filtered (debounced) and stored in a state register for dry contact and push button applications.

Separate removable screw terminal blocks supporting wires from AWG 28 / 0.08 mm^2 up to AWG 16 / 1.3 mm^2 are provided for power input, RS-485, inputs and outputs. To connect to other Barionet devices the Barix IO12 features two extension connectors on both sides of the device carrying power and RS-485 signals (one extension cable included).

A mounting bracket is available as an accessory.

Barix IO12 supports Modbus/RTU protocol at speeds of 9'600 and 19'200 Bauds, with and without parity and is a low cost alternative to add I/O capabilities to Modbus systems. Up to 31 Barix extension units can be directly connected to a Modbus Master such as the Barix Barionet and can be increased to up to 250 devices using standard RS-485 repeaters.

Using the Barix Barionet, the Barix IO12 can be controlled by a local Basic application (BCL) as well as remotely using TCP, UDP, Modbus/TCP and SNMP.

For further information, distribution partners, detailed technical specifications and information about other versions and products please visit **www.barix.com**